

Appl. No. 10/056,749  
Amdt. dated October 9, 2003  
Preliminary Amendment

PATENT

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

Claims 1-28 cancelled

29. (new) A method of obtaining a biomarker of caloric restriction, the method comprising comparing a gene expression profile from a caloric-restricted mammal to a gene expression profile from a control mammal of the same age, wherein the caloric-restricted mammal is subjected to a period of caloric restriction that is, post-weaning, less than life-long; and identifying changes in the gene expression profile that occur in the caloric-restricted mammal relative to the control mammal.

30. (new) The method of claim 29, wherein the period of caloric restriction is six weeks or less.

31. (new) The method of claim 29, wherein the period of caloric restriction is 2 weeks or less.

32. (new) The method of claim 29, wherein the caloric restriction is 2 days or less.

33. (new) The method of claim 29, wherein the caloric-restricted and control mammals are mature.

34. (new) The method of 29, wherein the caloric-restricted and control mammals are mice.

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35. (new) A method of determining an intervention that mimics caloric restriction, the method comprising comparing a gene expression profile in a biological sample subjected to the intervention to the gene expression profile from a biological sample from a control, wherein the gene expression profile comprises at least one biomarker that is identified as set forth in claim 29; and

identifying gene expression changes in the biological sample subjected to the intervention that mimic those changes that occur in caloric restriction.

36. (new) The method of claim 35, wherein the biomarker is obtained from a mammal subjected to a period of caloric restriction that is 6 weeks or less.

37. (new) The method of claim 35, wherein the biomarker is obtained from a mammal subjected to a period of caloric restriction that is 2 weeks or less.

38. (new) The method of claim 35, wherein the biomarker is obtained from a mammal subjected to a period of caloric restriction that is 2 days or less.

39. (new) The method of claim 35, wherein the biomarker is obtained from a young mammal subjected to caloric restriction.

40. (new) The method of claim 35, wherein the gene expression profiles are determined by measuring levels of RNA.

41. (new) The method of claim 40, wherein the levels of RNA are evaluated using a gene chip.

42. (new) The method of claim 35, wherein the biological sample that is subjected to the intervention is a cell population.

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43. (new) The method of claim 35 wherein the biological sample is obtained from a test animal that is subjected to the intervention.

44. (new) A method of obtaining a biomarker of caloric restriction, the method comprising comparing a gene expression profile from a young caloric-restricted animal to a gene expression profile from a control animal that is not caloric-restricted, and identifying changes in the gene expression profile that occur in the caloric-restricted animal.

45. (new) The method of claim 44, wherein the control animal is the same age as the young caloric-restricted animal.

46. (new) The method of claim 44, further comprising comparing the gene expression profiles from an old animal that is caloric-restricted to the gene expression profiles from the young caloric-restricted animal and the control animal; and identifying changes that occur in both the young and old caloric-restricted animals.

47. (new) The method of claim 44, further comprising comparing the gene expression profiles from an old animal that is caloric-restricted to the gene expression profiles from the young caloric-restricted animal and the control animal; and identifying changes that occur in only the young or only the old caloric-restricted animal.

48. (new) A method of determining an intervention that mimics caloric restriction, the method comprising comparing a gene expression profile in a biological sample subjected to the intervention to the gene expression profile from a biological sample from a control, wherein the gene expression profile comprises at least one biomarker that is identified in accordance with the method of claim 44;

and identifying gene expression changes in the biological sample subjected to the intervention that mimic those changes that occur in caloric restriction, thereby identifying an intervention that mimics caloric restriction.